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Forty - Seventh

# Annual Report

OF THE

Medical Officer of Health

OF THE

Urban Sanitary Authority

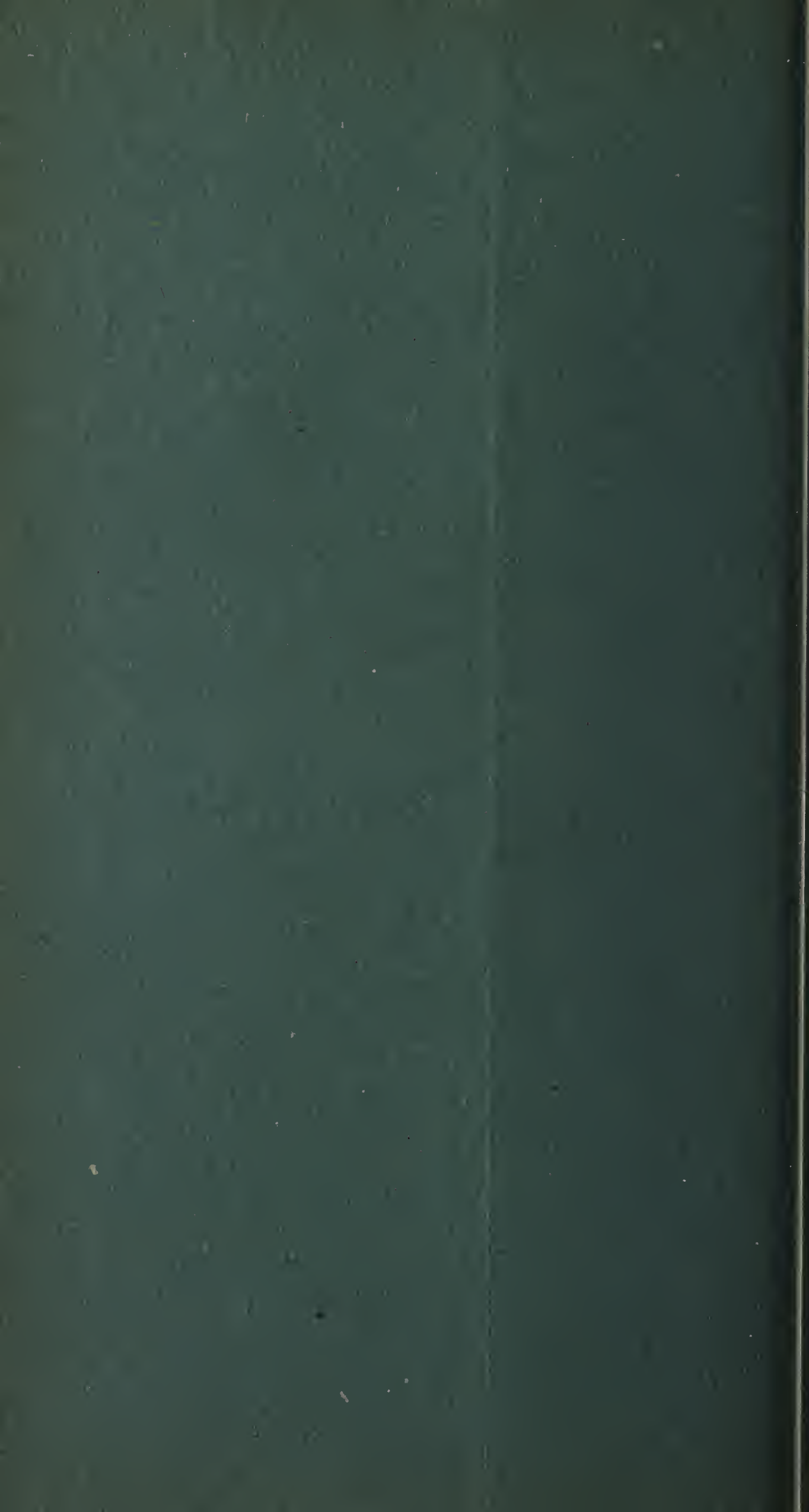
OF

The City of Worcester,

Year 1920.



Deighton & Co., Printers, Worcester.



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*The Forty-Seventh Report of the Medical  
Officer of Health,  
being that for the year 1920.*

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*To the Urban Sanitary Authority of the  
City and County of Worcester.*

Mr. Mayor, Aldermen, and Councillors,

This Report, which is the thirtieth I have had the honour to present to the City Council, is arranged on a plan indicated by the Ministry of Health in a memorandum received on February 15th, 1921.

The efficiency of the work of the Health department has been greatly increased by the Council deciding to appoint an Assistant Medical Officer. Dr. Mary Rollo Mitchell was chosen and began work on July 1st. The Maternity and Child Welfare work has been assigned to her, and has been organised and developed with much success. The great increase of births during 1920, an increase amounting to more than 40 per cent. on the average births of the four preceding years,

added very largely to the work of the Health Visitors, and greatly increased the number of women and infants attending the Clinics. The Worcester Infant Health Society very kindly offered to pay the salary of an additional Health Visitor, who began work in October. The details of the work concerning Maternity and Child Welfare are set out by Dr. Mitchell, who has written this part of the Annual Report.

It is very gratifying to see in the Annual Report of the Registrar-General for 1919 that Worcester stands sixth among the County Boroughs distinguished for a low Infant death-rate. The five County Boroughs having a lower Infant death-rate in 1919 were Bath, Oxford, Southend-on-Sea, Canterbury and Eastbourne, all of which towns have a population differing considerably from a manufacturing town like Worcester.

The Infant death-rate has been falling during this century all over the country, but the fall in Worcester has been very marked. In 1901 the death-rate was 131, and the average for the ten years 1901-1910 was 132. For the ten years, 1911 to 1920, the average Infant death-rate was only 76. There can be no doubt that the great success attained has been chiefly due to the preventive and educational work of the Health Visitors during the last 13 years, and

this success must be a stimulus to obtain still better results.

There are no other features in the statistics of the year that call for special notice. As the power of resistance of the individual to disease is usually the chief factor in the avoidance of infection, no one concerned for the health of the community can help but being anxious when unemployment and the anxieties attendant are so widespread as at the present time. These economic conditions are very depressing to the vitality of a nation, even apart from the want of adequate food and clothing. It will not be surprising, under these circumstances, if the statistics of this and the following year shew figures less favorable than those now presented.

I have pleasure in testifying to the excellent and conscientious work of your Chief Sanitary Inspector Mr. Ralph Taylor. It is well known to all members of the Health Committee.

I am,

Your obedient Servant,

MABYN READ

June 4th, 1921.

The City and County Borough of Worcester is situated on the banks of the Severn, and extends for a distance of three miles from North to South. The land rises on either side of the River, and on the East attains to a height of 50 feet above sea level.

The industries carried on are very varied, and includes engineering and Railway Signal Works, Tin Canister Works, Glove Factories, a Boot Factory, Royal Porcelain Manufactory, Tanneries, and others. This variety of diverse occupation tends to lessen the average of unemployment when trade is dull.

**Population.**—The Census of 1911 showed the population of the City to be 47,987. The extension of the City in 1914 added 1,171 persons, making the population 49,158.

The Registrar-General estimates the population in the middle of 1920 as 49,248.

Taking into consideration the housing conditions in 1911, when there were a number of vacant houses, and the conditions in 1920, when no vacant houses are to be found, it seems probable that there has been a greater increase of the population since 1914 than the above figures shew, namely 90. The Census of 1921 will probably prove the population to be over 51,000. In the meantime the rates in this Report have been reckoned on the estimate of the Registrar-General.

**The Birth-rate** was 23·2 per 1,000 of the population estimated by the Registrar-General. This is a higher rate than any recorded during the past 10 years. (See Table II., page 57).

In this Table it will be seen that the births during the year numbered 1,142, whereas the highest number registered since 1915 was 882 in 1916. The great increase in the births began in the Fourth Quarter of 1919 and has continued all through 1920.

**The Death-rate** for the year was 13·01, which is the lowest rate recorded, excepting those for the years 1917 and 1919.

The causes of death are set out in detail in a Table attached to this Report. Comparison of the number of deaths from various diseases during 1920 with previous years will be found in the following pages.

**The Infant Death-rate** which is calculated per 1,000 births was 67, which is a little higher than the rates of the three previous years. If comparison of the causes of the deaths that occur during the first month of life with the three previous years is made, it will be seen that the proportion of these deaths in 1920 to the total infant deaths was 57 per cent., whereas in 1917, 1918, and 1919 it was respectively 36 per cent., 46 per cent., and 42 per cent.

The deaths that occur during the first month are mostly due to the state of health of the mother during pregnancy, and can be influenced only by the care that is given to that condition. This ante-natal care is much needed in Worcester. The Centre dealing with this work has been

ghly successful, as the figures given later on in this report show (page 39), but it is uphill work to remove the prejudices and ignorance that surrounds this most wonderful and important function of the mother. It is a new idea to the woman that what is considered a natural condition should need any supervision or watching, and the risks that often attend the state of pregnancy are accepted as part of the burden of motherhood. Those expectant mothers who have sought the help of the Ante-natal Centre are very grateful for the advice given, and it is from the extension of this work that we may look for the further decrease in the infant death-rate.

**The Hospital accommodation of the district** consists :—

- a. The General Infirmary with 120 beds, but two of the wards containing 40 beds are closed for lack of funds.
- b. The Infirmary wards of the Worcester Guardians, having 84 sick beds for males, 76 for women, six for children, and four lying-in beds.
- c. The City Hospital, Newtown Road, with 42 beds for ordinary infectious disease, and 38 beds for Tuberculosis patients.

**Water Supply.**—The City water is taken from the River Severn which gives an unfailing supply. The Waterworks are at the North end of the City. The water is pumped from the River into tanks where part of the sediment is deposited, and flows thence on to nine sand filters, which have an area of 6301 square yards. The rate of filtration

is from  $2\frac{1}{2}$  to 3 inches per hour. The water passes from the filters into a pure water tank and is pumped from this to a covered reservoir at Rainbow Hill containing 812,000 gallons, and to another on Gorse Hill containing 250,000 gallons. This latter which is 300 feet above sea level supplies water by gravitation to the higher parts of the City.

There are no water storage cisterns in the houses. The water supply to all parts of the City is constant and sufficient.

The Severn has an ordinary flow of about 300 million gallons a day. It is liable to floods after heavy rain in its watersheds, which renders the water turbid with peat matter and the flushing out of the small streams the discharge into it. The river flow may then be two or three times greater than the average amount.

Samples from the pure water tank are taken weekly for bacteriological examination, the reports give the number of micro-organisms found on two and on three days' culture and the Bacilli Coli per 100 c.c. on three days' culture.

The results of the sand filtration as shown by these weekly examinations were quite good. On only one occasion were the micro-organisms per c.c. found on three days' culture to exceed 100; and the Bacilli Coli exceeded three per 100 c.c. only on three examinations during the year, and these were in frosty winter weather. In 60 per cent. of the samples no Bacilli Coli were found, a good proof of the excellency of the filtration.

**Drainage and Sewerage.**—During 1920 main sewer

ve been laid in the Astwood Road, Blackpole Road, and  
t of the Malvern Road. In the outlying parts there are  
125 privies. There are 52 houses with pail closets in  
tricts which are not sewered, and 34 houses having W.C's  
ich are not yet connected with the sewers. Many of  
se 34 houses will be connected shortly.

The Sewage Disposal Works on the South-west end of  
City have undergone no change during the year. The  
weather flow of the sewage is two million gallons daily,  
d three quarters of a million gallons are being dealt with  
these Works.

**Removal of House Refuse** is carried out by a staff of  
n, horses and carts belonging to and in the employ of  
Corporation. The refuse is deposited in low-lying parts  
or near the City and covered with earth. The road  
weepings are added to these refuse heaps. No complaints  
nuisance from these tips have been made to the Health  
partment.

During the year 247 sanitary dustbins have been provided.  
any of the receptacles made use of are insanitary and  
ngorous to health, being a breeding ground from which  
s carry disease germs into the houses and so poison the  
od.

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## **Sanitary Inspection of the District.**

The Chief Sanitary Inspector has furnished the following  
ormation of the work done during the year.

**Abatement of Nuisances.**—There were 1161 Preliminary Notices issued, and 492 Statutory Notices served by order of the Health Committee. These were complied with after some delay in carrying out the requirements of the Health Committee owing to the scarcity of labour and of materials.

#### SUMMARY OF WORK DONE DURING 1920.

|                                                               |     |     |     |
|---------------------------------------------------------------|-----|-----|-----|
| Number of Notices (Preliminary) issued ...                    | ... | ... | 16  |
| „ „ (Statutory) „ ...                                         | ... | ... | 9   |
| „ Complaints received and investigated ...                    | ... | ... | 5   |
| „ Letters sent with regard to Notices, &c. ...                | ... | ... | 6   |
| „ Notices sent to Schools <i>re</i> Infectious Diseases       | ... | ... | 6   |
| Rooms cleansed and limewashed ...                             | ... | ... | 16  |
| Dilapidated walls, floors, windows, &c., repaired ...         | ... | ... | 4   |
| Defective roofs and spouting repaired ...                     | ... | ... | 3   |
| Damp walls cured ...                                          | ... | ... | 5   |
| Wash-houses repaired, cleansed and limewashed ...             | ... | ... | 4   |
| „ floors and yards repaved and repaired ...                   | ... | ... | 5   |
| Glazed stoneware sinks fixed ...                              | ... | ... | 1   |
| Sink waste and rainwater pipes disconnected from drain...     | ... | ... | 3   |
| Drains opened and cleansed ...                                | ... | ... | 6   |
| Defective drains repaired or reconstructed ...                | ... | ... | 5   |
| Glazed stoneware gulley traps fixed ...                       | ... | ... | 3   |
| Water closets repaired, cleansed and limewashed...            | ... | ... | 1   |
| „ flushing tanks repaired ...                                 | ... | ... | 1   |
| „ provided with new basins and traps ...                      | ... | ... | 3   |
| Defective joints in pans, traps, and flush pipes repaired ... | ... | ... | 3   |
| Nuisances from overcrowding abated ...                        | ... | ... | ... |
| „ „ improper keeping of animals ...                           | ... | ... | ... |
| Accumulation of manure removed...                             | ... | ... | ... |

|                                                                                                                        |     |     |     |
|------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|
| uses provided with proper water supply                                                                                 | ... | ... | 2   |
| itary dustbins provided                                                                                                | ... | ... | 247 |
| cellaneous                                                                                                             | ... | ... | 106 |
| te of water reported to Water Inspector                                                                                | ... | ... | 39  |
| number of references to City Engineer with regard to dangerous buildings, paving of courts, and foul street gullies... | ... | ... | 25  |
| ptying of ashpits and dustbins referred to the Streets Superintendent                                                  | ... | ... | 10  |
| oms disinfected after infectious disease                                                                               | ... | ... | 295 |
| mples of food and drugs collected for the City Analyst                                                                 | .   |     | 140 |
| „ tap and well water                                                                                                   | „   | „   | 11  |

**Factory and Workshop Acts.**—There are 233 workshops and 50 bakehouses on the Register. Nineteen new workshops have been added during 1920, and six have been deleted.

One hundred and eighty inspections were made of the workshops and work places, and 27 written notices to remedy defects were sent, all of which were complied with.

The following were the defects found :—

|                                                    |     |     |    |
|----------------------------------------------------|-----|-----|----|
| Workshops not in clean condition                   | ... | ... | 5  |
| Workshops not sufficiently ventilated              | ... | ... | 1  |
| Want of drainage of floors                         | ... | ... | 3  |
| Defective drainage                                 | ... | ... | 2  |
| Accumulations of refuse                            | ... | ... | 2  |
| Insufficient sanitary accommodation                | ... | ... | 1  |
| Unsuitable or defective sanitary accommodation     |     |     | 6  |
| Want of separate sanitary conveniences for females | ... | ... | 1  |
| Bakehouses required to be limewashed               | ... |     | 11 |

In one instance it was found that a young person under 18 years of age was employed, and no abstract of the Factory and Workshop Acts was affixed in the workshop. The attention of H.M. Inspector of Factories was called to this contravention.

Six notices of infringements of the Public Health Act were received from H.M. Inspector of Factories, and were immediately dealt with.

**Common Lodging Houses.**—At the end of 1920 there were nine registered Common Lodging Houses within the City.

One hundred and thirty-eight visits have been made to the houses, and, with one exception, the byelaws have been well observed.

The houses are some of the oldest in the City, and cannot speak favourably of the suitability and construction of several of them.

**Houses let in Lodgings.**—There has been no increase in the number of houses let in lodgings registered, the number still remaining at 11.

The houses receive frequent visits and they have been fairly well conducted.

The byelaws relating to limewashing have been strictly carried out.

**Offensive Trades.**—The following is a list of the

ides, all of which are subject to byelaws :—

|                            |     |     |     |     |     |    |
|----------------------------|-----|-----|-----|-----|-----|----|
| Fish frying                | ... | ... | ... | ... | ... | 26 |
| Tripe boiling              | ... | ... | ... | ... | ... | 5  |
| Hide, skin and fat dealers | ... | ... | ... | ... | ... | 2  |
| Gut scrapers               | ... | ... | ... | ... | ... | 2  |
| Rag and bone dealers       | ... | ... | ... | ... | ... | 6  |

From periodical inspections it was found that the premises were kept in a satisfactory state, and that there is no infringement of the byelaws.

The Health Committee have had under their consideration the question of making byelaws to regulate the trade of the Fellmongers, of which there are three in the City. After visiting the works and receiving deputations from the Fellmongers, and communicating with the Ministry of Health, the City Council postponed the making of the byelaws on conditions set out in a letter sent by the Fellmongers to the Council.

**Slaughterhouses.**—At the end of 1920 there were 24 registered private Slaughterhouses in use in the City.

There were also eight registered private Slaughterhouses which have not been used for some time, and there is no doubt that the Health Committee will not permit them to be again used for slaughtering.

One private Slaughterhouse is used for the slaughter of horses for human food.

On July 1st, 1920, the control was taken off meat and slaughtering of animals, and the butchers have again resumed the use of their private Slaughterhouses.

The Slaughterhouses are visited at least once a week, as far as possible at the time of slaughtering, as full inspection of the carcasses and their internal organs can then be made.

|            |     | In<br>1914. |     | In January,<br>1920. |     | In December<br>1920. |
|------------|-----|-------------|-----|----------------------|-----|----------------------|
| Registered | ... | 32          | ... | 32                   | ... | 32                   |
| Licensed   | ... | 0           | ... | 0                    | ... | 0                    |

Eight of the 32 registered Slaughterhouses have been used for some years.

**Public Slaughterhouses.**—Considerable improvements have been carried out at the public Slaughterhouse, Croft Road. The Meat Store has been enlarged, and a new system of over-head running rails has been fixed for carrying the meat from the Slaughterhouse to the Meat Store.

Additional Fasting Pens have been provided, and, having regard to the length of time the Slaughterhouses have been in existence, viz., since 1868, they are now fairly up-to-date.

The Manager, Mr. A. E. Underwood, is a practical butcher, and devotes the whole of his time to the duties of his office.

Mr. R. Taylor, the Chief Sanitary Inspector, attends the Slaughterhouses every morning, and all animals and organs are inspected before removal from the Slaughterhouses.

In May the Health Committee increased the charges for slaughtering 50 per cent.

The following is the number of animals slaughtered during the last three years:—

|                       | Charges for<br>Slaughtering | 1919      | To March 31st<br>1920 | 1921     |
|-----------------------|-----------------------------|-----------|-----------------------|----------|
| Number of Beasts..... | 1s. 6d.                     | ... 1238  | ... 3036              | ... 1096 |
| „ Sheep .....         | 5d.                         | ... 14638 | ... 21115             | ... 4120 |
| „ Calves.....         | 9d.                         | ... 1136  | ... 733               | ... 184  |
| „ Pork Pigs .         | 9d.                         | ... 1338  | ... 892               | ... 935  |
| „ Bacon Pigs          | 1s. 6d.                     | ... 167   | ... 375               | ... 256  |
|                       |                             | 18517     | 26151                 | 6591     |

|                                            | 1919 |    |    | 1920 |    |    | 1921 |    |    |
|--------------------------------------------|------|----|----|------|----|----|------|----|----|
|                                            | £    | s. | d. | £    | s. | d. | £    | s. | d. |
| Amounts received for<br>Slaughtering ..... | 316  | 4  | 6  | 475  | 2  | 3  | 214  | 1  | 0  |

## Food.

**Milk Supply.**—The City is in the midst of a fertile agricultural district, and 90 per cent. of the milk is produced in the immediate neighbourhood and sold to the retailers in the City. There are in the City 7 cow-keepers and 60 conveyors of milk. The Cowshed Regulations are fairly well kept, but the scrupulous cleanliness that should surround the production and distribution of a food so susceptible to contamination as milk is, is seldom found.

Under the Sale of Food and Drugs Acts 68 samples of milk were examined. Of these 62 proved to be genuine. The remaining six samples were dealt with as follows :—

| Number of<br>Samples. | Extent of Deficiency.                                                              | Result.                         |
|-----------------------|------------------------------------------------------------------------------------|---------------------------------|
| 1                     | 33·3 per cent. deficient in fat,<br>and 20 per cent. deficient<br>non-fatty solids | Fine £5 and<br>£1 1s. od. Costs |

| Number of Samples. | Extent of Deficiency.                                                                                           | Result.                              |
|--------------------|-----------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 1                  | 5·8 per cent. deficient in non-fatty solids. (Obtained from previous vendor)                                    | Vendor warned<br>Health<br>Committee |
| 1                  | 10 per cent. deficient in fat, and 5·8 per cent. deficient in non-fatty solids. (Sample taken direct from cows) | Vendor warned<br>Health<br>Committee |
| 1                  | 4·1 per cent. deficient in non-fatty solids. (Sample taken direct from cows)                                    | Vendor warned<br>Health<br>Committee |
| 1                  | 3·5 per cent. deficient in non-fatty solids                                                                     | Vendor warned<br>Health<br>Committee |
| 1                  | 2·3 per cent. deficient in non-fatty solids. (Samples taken direct from cows)                                   | No action taken                      |

No samples of milk were examined for Tuberculosis during the year.

**Milk and Cream Regulations, 1912 and 1917.**—The Analyst has reported on the samples submitted to his examination, as follows:—

1. Milk and Cream not sold as Preserved Cream:

|             | (a)<br>Number of samples<br>examined for the<br>presence of a<br>preservative. | (b)<br>Number in which<br>a preservative<br>was found<br>present |
|-------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|
| Milk .....  | 76                                                                             | —                                                                |
| Cream ..... | 4                                                                              | —                                                                |

2. Cream sold as Preserved Cream:

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label as to preservatives were correct.

1. Correct statements made .....
2. Statements incorrect .....

(b) Determination made of milk fat in cream sold as Preserved Cream.

|                           |       |
|---------------------------|-------|
| 1. Above 35 per cent..... | I     |
| 2. Below 35 per cent..... | —     |
|                           | <hr/> |
|                           | I     |

**Milk (Mothers and Children) Order, 1919.**—This Order, issued October 14th, pressed upon Local Authorities the importance of making full use of the powers which this and previous Orders gave them. The Health Committee, knowing the value of milk as a food for mothers and young children, took immediate steps to carry out the advice given them by the Ministry of Health. This matter so important for the health of the infants is fully dealt with in a part of this Report concerning Maternity and Child Welfare.

**Unsound Food.**—During the year the following food has been destroyed as being diseased, unsound, or unwholesome:—

### *Tuberculosis.*

| Article. | Cause of Condemnation. |
|----------|------------------------|
|----------|------------------------|

#### CATTLE.

|                              |                           |
|------------------------------|---------------------------|
| carcases and all organs..... | Generalised tuberculosis. |
| all organs .....             | Localised           ,,    |
| heads and tongues.....       | ,,       ,,               |
| sets of lungs .....          | ,,       ,,               |
| livers .....                 | ,,       ,,               |

#### PIGS.

|                              |                           |
|------------------------------|---------------------------|
| carcases and all organs..... | Generalised tuberculosis. |
| heads and all organs.....    | Localised           ,,    |
| heads .....                  | ,,       ,,               |

*Other Diseases.*

| Article.                                                        | Cause of Condemnation.              |
|-----------------------------------------------------------------|-------------------------------------|
| <b>CATTLE.</b>                                                  |                                     |
| 9 carcasses and organs .....                                    | Emaciation due to Johr disease.     |
| 2 „ „ .....                                                     | Hydremic Cachexia.                  |
| 5 „ „ .....                                                     | Pyrexia.                            |
| 1 carcase „ .....                                               | Septicæmia.                         |
| 2 carcasses „ .....                                             | Septic Metritis.                    |
| 1 carcase „ (bull) ...                                          | Black Quarter.                      |
| 26 heads and tongues .....                                      | Actinomycosis.                      |
| 6 „ „ .....                                                     | Abscess.                            |
| All organs of 9 cattle, 110 livers,<br>11 lungs, 6 tripes ..... | Locally diseased.                   |
| <b>SHEEP.</b>                                                   |                                     |
| 3 carcasses and all organs.....                                 | Hydremic Cachexia.                  |
| 2 „ „ .....                                                     | Asphyxia.                           |
| 2 „ „ .....                                                     | Pleurisy.                           |
| 4 „ „ .....                                                     | Peritonitis.                        |
| 1 carcase „ .....                                               | Natural death.                      |
| 146 livers, 194 lungs .....                                     | Parasitic diseases.                 |
| <b>PIGS.</b>                                                    |                                     |
| 4 carcasses and all organs.....                                 | Rachitis and emaciation.            |
| 1 carcase „ .. ...                                              | Natural death.                      |
| 451 lbs, of meat .....                                          | Unwholesomeness due to during life. |
| 245 lbs. of frozen beef.....                                    | Mouldy, decomposition.              |
| 106 carcasses of frozen mutton...                               | „ „                                 |
| 61 lbs. of bacon.....                                           | Decomposition.                      |
| 56 lbs. of kippers .....                                        | „                                   |
| 156 lbs. of herrings .....                                      | „                                   |

| Article.                                           | Cause of Condemnation. |
|----------------------------------------------------|------------------------|
| 58 lbs. of cod, hake .....                         | Decomposition.         |
| 42 lbs. of haddock.....                            | „                      |
| 60 lbs. of dates .....                             | Unsound.               |
| 65 eggs .....                                      | „                      |
| 30 tins of condensed milk, fruit,<br>fish, &c..... | „                      |

The total weight of food condemned was 14 tons, 8 cwts., 4 lbs. The whole of this food was voluntarily surrendered by the respective owners.

**Sale of Food and Drugs Acts.**—The total number of samples submitted to the Analyst in 1920 was 140. Of these 97 were taken under the Sale of Food and Drugs Acts, and 43 were test samples.

Of the 97 samples taken under the Acts, 90 were certified to be genuine and seven as adulterated; of the 43 test samples, 39 were certified to be genuine, and four as adulterated.

The following table shows the amount of adulteration during the past three years:—

|                                    | 1918        |          |     | 1919        |          |     | 1920       |          |
|------------------------------------|-------------|----------|-----|-------------|----------|-----|------------|----------|
|                                    | Formal      | Informal |     | Formal      | Informal |     | Formal     | Informal |
| Analyses .....                     | 87          | 50       | ... | 92          | 48       | ... | 97         | 43       |
| Adulterated .....                  | 9           | 2        | ... | 6           | 9        | ... | 7          | 4        |
| Adulterated per cent..             | 10·3        | 4·0      | ... | 6·5         | 18·7     | ... | 7·2        | 9·3      |
| Amounts of Fines and<br>Costs..... | £60 3s. od. |          |     | £49 4s. od. |          |     | £6 1s. od. |          |

## List of samples collected during the year :—

| No.<br>Exd. | No.<br>Adul-<br>terated. | Article.             |     |     | Formal,  |                   | Infor |
|-------------|--------------------------|----------------------|-----|-----|----------|-------------------|-------|
|             |                          |                      |     |     | Genuine. | Adul-<br>terated. |       |
| 2           | —                        | Arrowroot            | ... | ... | —        | —                 | 2     |
| 14          | —                        | Butter               | ... | ... | 8        | —                 | 6     |
| 4           | —                        | Bread                | ... | ... | —        | —                 | 4     |
| 6           | 1                        | Coffee               | ..  | ... | 2        | 1                 | 4     |
| 2           | —                        | Cheese               | ... | ... | 1        | —                 | 1     |
| 5           | —                        | Cream                | ... | ... | —        | —                 | 5     |
| 3           | —                        | Cocoa                | ... | ... | 1        | —                 | 2     |
| 1           | —                        | Camphorated Oil      | ... | ... | —        | —                 | 1     |
| 2           | —                        | Flour, Self-Raising  | ... | ... | —        | —                 | 2     |
| 1           | —                        | Honey                | ... | ... | —        | —                 | 1     |
| 4           | —                        | Jam                  | ... | ... | 4        | —                 | —     |
| 5           | —                        | Lard                 | ... | ... | 4        | —                 | 1     |
| 2           | —                        | Mercury Ointment     | ... | ... | —        | —                 | 2     |
| 1           | —                        | Milk, Skim           | ... | ... | 1        | —                 | —     |
| 3           | —                        | Milk, Condensed      | ... | ... | 3        | —                 | —     |
| 75          | 10                       | Milk                 | ... | ... | 68       | 6                 | 7     |
| 1           | —                        | Margarine            | ... | ... | 1        | —                 | —     |
| 3           | —                        | Pepper               | ... | ... | 1        | —                 | 2     |
| 1           | —                        | Powder, Compound     |     |     |          |                   |       |
|             |                          | Liquorice            | ... | ... | 1        | —                 | —     |
| 2           | —                        | Powder, Custard, &c. |     |     | —        | —                 | 2     |
| 1           | —                        | Rice                 | ... | ... | 1        | —                 | —     |
| 1           | —                        | Syrup                | ... | ... | 1        | —                 | —     |
| 1           | —                        | Tincture of Iodine   | ... | ... | —        | —                 | 1     |
| <hr/> 140   |                          | <hr/> 11             |     |     | 97       | 7                 | 43    |

**Coffee.**—One sample of Coffee was certified to contain parts of Chicory. The sample was sold in a wrapper marked "French Coffee, a blend of the finest Chicory and Coffee."

After considering the circumstances of the case the Health Committee warned the vendor.

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## **Prevalence of and Control over Infectious Diseases.**

**Smallpox.**—No case of this disease has been notified during the year.

The Hospital in the Tolladine Road is always ready to receive patients.

**Public Health (Smallpox Prevention) Regulations, 1907.**—No vaccinations, primary or otherwise, have been performed by the Medical Officer of Health under these Regulations.

**Scarlet Fever.**—There were 74 cases of this disease notified, seven were secondary cases, and 58 (*i.e.* 78 per cent.) were removed to the City Hospital. The type of disease was mild and no death resulted. More than half the cases occurred between October 1st and November 20th, and chiefly in the Rainbow Hill district. The outbreak was of a very mild type, and atypical, and most of the patients would not confess to any feeling of illness. The epidemic came suddenly to an end at the

date above mentioned. There were no return cases during the year.

**Diphtheria.**—Of this disease 112 cases were notified, 81 were secondary cases and 91 (*i.e.* 81 per cent.) were removed to the City Hospital. Five deaths occurred, a baby nine months' old; a child three years, following Tracheotomy; a girl of five years from heart failure; and two adults, who both died on the day the disease was recognised and notified. In one of these last cases three other persons in the same family contracted the disease.

The disease was distributed over the City, and only one School had an outbreak. There was an unusual number of adults attacked, namely 36, being 32 per cent. of the total.

There is considerable use made by the medical men of the free distribution of swabs, and of free bacteriological examination of the swabs, and many of the cases are notified on the report of the bacteriological examination. These patients come speedily under treatment and quickly recover without severe illnesses. But when medical aid is not called in until the third or fourth day of illness, the result is very different and a long and dangerous illness ensues.

There were 1,019 bacteriological examinations of swabs from throat and nose taken, 308 by the medical practitioners and 711 from patients in Hospital. No patients are discharged from the Diphtheria wards until two consecutive swabs from throat and nose are reported negative.

**Typhoid and Paratyphoid Fevers.**—Four cases

phoid and one of Paratyphoid Fever were reported. The latter died, the disease being complicated by lung disease. One of the patients died on the same day on which the notification was received, the illness was very acute, lasting only six days. The others made good recoveries.

There were no defects of drainage found in the houses of patients. Three of the patients were taken ill during summer months.

|                                                                                                |   |                                                           |
|------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------|
| <b>Acute Poliomyelitis.</b><br><b>Acute Polioencephalitis.</b><br><b>Cerebro Spinal Fever.</b> | } | No cases of these diseases were notified during the year. |
|------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------|

**Encephalitis Lethargica.**—One case was notified in the son of a young married woman, who recovered after a long illness. The patient was nursed in her own home and no spread of the disease took place.

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## **Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations, 1919.**

**Acute Primary Pneumonia.**—There were 46 cases notified. Six of these cases died. The cases were notified through the four Quarters of the year as follows:—First Quarter, 16; Second, 12; Third, 8; Fourth, 9. There were 11 children attacked under 10 years of age, and 16 persons over 40.

**Influenzal Pneumonia.**—Only five cases were notified. There was no epidemic of Influenza during 1920, but sporadic cases occurred and four deaths resulted, all between the ages of 25 and 55.

**Malaria.**—Only nine persons, all ex-service men, were notified as having this disease. All but one, who was a visitor, were interviewed and were under the care of a medical man, and in receipt of adequate treatment.

**Dysentery.**—Two ex-service men were notified. They had been in the Palestine campaign. The men were seen and instructed as to the precautions to be taken to prevent infection. No spread of the disease occurred.

**Hospital accommodation** of persons attacked by ordinary infectious diseases is provided at the City Hospital, Newtown Road. There are separate blocks of buildings for Scarlet Fever, Diphtheria, and Typhoid Fever. The accommodation is ample for the needs of the City and patients from neighbouring Authorities are admitted at times.

Within the Hospital grounds, two pavilions and verandahs are provided for the treatment of moderately severe and advanced cases of Tuberculosis. There are 13 beds for 13 men, 14 women, and seven children. There are, in addition, two small wards having two beds each where advanced cases can be nursed in the winter months.

**The Chemical Analyses and the Bacteriological Work** is all done at the Laboratory at the Shirehall. The work

from the pure water tank at the City Waterworks is bacteriologically reported on weekly and at such other times as may be considered necessary. All the food analyses are done there, and also the bacteriological examination of swabs from sore throats, and of the sputum from suspected and reported cases of Tuberculosis. There were 1259 examinations made during the year, exclusive of the reports on water, milk, and foods.

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## Tuberculosis.

The scheme for the prevention and treatment of this disease was set out in the Annual Report for 1919. It has been in full working since January, 1915, but partial provision for hospital treatment was made in the Autumn of 1912. The City Council has reserved five male and five female beds at Knightwick Sanatorium for early cases of Pulmonary Tuberculosis, and has at the City Hospital, Newtown Road, accommodation in open-air pavilions and shelters for 14 women, seven children, and 13 men. There are also two small wards of two beds each for very advanced cases that cannot be treated in the open-air during the winter months. At this Hospital severe and advanced cases are admitted, and in some instances remain there until they die. These advanced cases are especially dangerous to the inmates of the small homes from which they generally come, and segregation must prevent the spread of the disease in their families.

Non-pulmonary cases requiring active surgical treatment are admitted to the wards of the General Infirmary, and the City Council pays for their maintenance and treatment. A few of these patients are treated at Newtown in cubicles distinct from the Pulmonary cases, when no active surgical treatment is necessary and are much improved by the stay there.

The Medical Officer of Health is also Tuberculosis Officer. An Assistant Medical Officer, Dr. Mary Rol Mitchell, was appointed in June, 1920, and began her work on July 1st.

The Ministry of Health has approved of Dr. Mitchell as Assistant Tuberculosis Officer, and the women and children coming to the Dispensary are under her care.

A whole-time Tuberculosis Nurse attends at each Clinic, visits the homes of the patients who are willing to be helped, and endeavours to see that the advice given them respecting the prevention of infection and the care of their own health is carried out so far as the home conditions allow.

During the year 98 cases were notified, 69 being Pulmonary and 29 Non-pulmonary cases. The age and sex distribution of these cases are given in the Table here set out.

## Summary of Notifications for the year 1920.

| Ages.                 | No. of Notifications on Form "A". |        |         |          |          |          |          |          |          |          |           |        | No. of Notifications on Form "B." |         |          | No. of Notifications on Form "C." |                        |            |     |
|-----------------------|-----------------------------------|--------|---------|----------|----------|----------|----------|----------|----------|----------|-----------|--------|-----------------------------------|---------|----------|-----------------------------------|------------------------|------------|-----|
|                       | Primary Notifications.            |        |         |          |          |          |          |          |          |          |           |        | Total.                            |         |          | Total Notifications on Form "B."  | Poor Law Institutions. | Sanatoria. |     |
|                       | Primary Notifications.            |        |         |          |          |          |          |          |          |          |           |        | Total.                            |         |          |                                   |                        |            |     |
|                       | 0 to 1                            | 1 to 5 | 5 to 10 | 10 to 15 | 15 to 20 | 20 to 25 | 25 to 35 | 35 to 45 | 45 to 55 | 55 to 65 | 65 and up | Total. | Under 5                           | 5 to 10 | 10 to 15 |                                   |                        |            |     |
| <b>Pulmonary.</b>     |                                   |        |         |          |          |          |          |          |          |          |           |        |                                   |         |          |                                   |                        |            |     |
| Males .....           | ...                               | 1      | 2       | ...      | 5        | 6        | 7        | 9        | 4        | 2        | 1         | 37     | 39                                | ...     | ...      | ...                               | 1                      | 48         |     |
| Deaths.....           | ...                               | ...    | ...     | ...      | 2        | ...      | ...      | 1        | 3        | 1        | 1         | 8      | ...                               | ...     | ...      | ...                               | ...                    | ...        | ... |
| Females .....         | ...                               | ...    | 4       | 2        | 4        | 2        | 7        | 1        | 3        | 4        | 3         | 30     | 30                                | ...     | 2        | ...                               | 1                      | 43         |     |
| Deaths.....           | ...                               | ...    | ...     | ...      | 1        | 1        | 3        | ...      | 2        | 2        | 2         | 11     | ...                               | ...     | ...      | ...                               | ...                    | ...        | ... |
| <b>Non-Pulmonary.</b> |                                   |        |         |          |          |          |          |          |          |          |           |        |                                   |         |          |                                   |                        |            |     |
| Males .....           | 1                                 | 1      | 1       | 4        | 3        | ...      | 2        | ...      | ...      | ...      | 1         | 13     | 15                                | ...     | ...      | ...                               | ...                    | 10         |     |
| Deaths.....           | 1                                 | ...    | ...     | ...      | 1        | ...      | 1        | ...      | ...      | ...      | 1         | 4      | ...                               | ...     | ...      | ...                               | ...                    | ...        | ... |
| Females .....         | ...                               | 1      | ...     | 4        | 4        | 3        | 2        | 1        | 1        | ...      | ...       | 16     | 19                                | ...     | ...      | ...                               | ...                    | 6          |     |
| Deaths.....           | ...                               | ...    | ...     | 1        | 1        | ...      | ...      | ...      | 1        | ...      | ...       | 3      | ...                               | ...     | ...      | ...                               | ...                    | ...        | ... |

NOTE.—The deaths occurred during the year 1920.

Of the 69 Pulmonary cases, no less than 15 died within three months of the date of notification; 11 of these died within four weeks of that date.

Of the 39 male Pulmonary cases, 16 were ex-service men. No ex-service man had to wait for more than a few days before being admitted to a Sanatorium, if he desired.

The Tuberculosis Dispensary is held in the rooms of the Provident Dispensary in Bank Street. Three clinics a week are held there. A total of 365 persons were seen and examined, and 1480 attendances were made during the year. All the persons notified who were willing to accept help from the Council's scheme, contacts from the families of the notified persons, and persons sent by the medical men of the City for consultation, were all seen and examined and dealt with as their condition required. The contacts are kept under observation for many months.

The Insurance Committee, on the advice of the Tuberculosis Officer, ordered domiciliary treatment for 10 persons. Eight of these persons died in less than three months. All the persons had been in Institutions or had been attending the Dispensary up to the time domiciliary treatment was ordered.

The School Medical Officer notified two children suffering from Pulmonary Tuberculosis, and both were treated at a Sanatorium. Many other children were sent to the Dispensary for examination, and most of the contacts examined were children of school age.

**Knightwick Sanatorium.**—The Council reserves the

beds for men and five for women at this Institution. So far as vacancies allow, only the early cases are sent there. On January 1st, 1920, there were four men and one woman in the beds. During the year 17 men (12 of these ex-service men), 11 women and six children were admitted.

Of the patients notified during 1920, 13 males and seven females were treated at Knightwick.

**Newtown Hospital.**—During the year 37 men (23 were ex-service men), 27 women, and 18 children were admitted. Five men and two women remained there until their deaths. Six of the women were admitted from other local authorities.

Never since the passing of the Insurance Act has there been any "waiting list" of persons willing to go to a residential institution. This statement applies to insured and non-insured persons and their dependants.

Non-pulmonary cases are received at Newtown Hospital, either to improve their health before operation, or after operation has taken place and when active surgical treatment is not needed. Nine such cases were admitted during 1920, with great benefit to their condition.

The patients who are confined to the homes and need nursing are well looked after by the District Nurses of the City and County Nursing Institution.

The local Insurance Committee has provided extra nourishment for several of the insured persons who were thereby enabled to maintain their strength after discharge from institutions.

The Council has three open-air Shelters which are loaned to patients whose housing accommodation is bad, and who have gardens in which the Shelters can be placed. The Shelters are always in use.

A Care Committee for tuberculous persons is greatly needed. The Health Committee has from time to time granted small sums of money which has been expended in providing the clothing necessary for residence in an Open-air Institution. The poor are frequently badly and scantily clothed. To preserve their body's warmth, the doors and windows of their rooms are closed, producing an atmosphere calculated to foster the development of Tuberculosis.

The three conditions that lead to the increase of Tuberculosis are bad housing, inadequate food, and insufficient and improper clothing. If these could be eliminated the problem would be a comparatively easy one to deal with. We cannot look forward to much improvement so long as the present unhappy social conditions exist.

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## The Public Health (Venereal Diseases) Regulations, 1916.

This scheme for the free treatment of these diseases has been in work since July 1st, 1917. The Council signed an agreement with the Committee of the General Infirmary and the Committee undertook to provide treatment for all comers. A member of the Honorary Staff of the Infirmary is the Medical Officer, and holds two clinics a

week, one for men and one for women. Arrangements are made whereby anyone can apply for treatment between the days on which the clinics are held and the House Surgeon gives that treatment, and also supervises, at stated times, treatment ordered by the Medical Officer.

The following are statistics supplied by the Medical Officer of the cases treated during the year:—

|                           | New cases suffering from |    | Persons discharged treatment completed. |    | Persons discharged treatment not completed. |    | Total attendances. |     |
|---------------------------|--------------------------|----|-----------------------------------------|----|---------------------------------------------|----|--------------------|-----|
|                           | M.                       | F. | M.                                      | F. | M.                                          | F. | M.                 | F.  |
| Syphilis.....             | 39                       | 16 | 4                                       | 3  | 3                                           | 3  | 588                | 146 |
| Gonorrhœa .....           | 36                       | 2  | 5                                       | 4  | 3                                           | 2  | 1637               | 29  |
| Not Venereal Diseases ... | 25                       | 11 | —                                       | —  | —                                           | —  | 107                | 95  |

For Syphilis there were 69 male and 33 female “in-patient days”; and for Gonorrhœa 59 male and one female in-patient days.”

Salvarsan substitutes were administered to 80 males and 7 females, and 381 doses were given to these patients.

Twenty-one persons had in-patient treatment for Syphilis, and five for Gonorrhœa.

No modification of the scheme has taken place during 1920. The Medical Officer is able to deal with all the patients during the hours appointed. The Health Committee have now under consideration a suggestion that there shall be two clinics a week for men and for women.

It will be seen in the statistics given above that comparatively few women avail themselves of this free treatment, and that five out of 18 ceased attendance before

the treatment was completed. That women will not attend in many instances is confirmed by the experience of the Ante-natal Child Welfare Clinics, at which the women who are advised to go to the Venereal Diseases Clinic decline to do so, alleging that anyone going to the General Infirmary Out-patient Department on that particular afternoon is marked down as suffering from these diseases. The Medical Officer of the Ante-natal Clinic therefore treats these women with medicines in use before Salvarsan was discovered, and with good results.

There are seven medical practitioners in the City who are qualified to receive free supplies of Salvarsan substitutes and who have been given 98 doses during the year.

The pathological examinations are all made at a central laboratory at Birmingham:—

|                            | Detection of<br>Spirochetes. | Detection of<br>Gonococci. | Wasse<br>tests |
|----------------------------|------------------------------|----------------------------|----------------|
| From the Centre .....      | 8                            | 106                        | 12             |
| From Medical Practitioners | 0                            | 8                          | 2              |
| Ante-natal Clinics .....   | —                            | 13                         |                |

No action under the Venereal Diseases Act, 1917, has been taken during the year.

The standard of sex morality in the nation must be raised if the amount of these diseases are to be reduced as they are chiefly due to promiscuous sex intercourse.

“We cannot look for any considerable raising of the standard of sex morality until public opinion ceases to condone prostitution, and until indulgence in promiscuous sex intercourse is no longer considered by the citizen a matter of individual concern only, but is regarded as

conduct of an anti-social character. The important question thus arises whether, and to what extent, State action should be invoked to influence public opinion in thus disapproving of promiscuous sex intercourse."

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## Maternity and Child Welfare.

**Midwives' Act, 1902.**—There were 18 Midwives, all certified and trained, practising in the City during the year 1920. Five of these were on the Staff of the County and City Nursing Institution, and the others were in practice on their own account. There were 1165 births registered, 352 births more than last year. The Midwives attended 1028 cases. Medical assistance was requested, in accordance with the Rules of the Central Midwives' Board, by the Midwives in 198 instances—in 144 cases it was on account of the mother, and in 54 cases on account of the infant.

**Inspection of Midwives.**—The Midwives' registers and appliances, and in a few cases the homes, were inspected by the Midwives' Inspector, and no infringement of the Rules of the Central Midwives' Board was found, but a few minor suggestions were made and willingly carried out by the midwives. There was no special inspection of their work. All cases of still-births notified by the Midwives, of Ophthalmia Neonatorum, and of Puerperal Fever were required into and visited by the Health Visitors.

**Notification of Births Act, 1907.**—In obedience with

this Act, 1151 live-births and 35 still-births were notified during the past year, 1060 by Midwives, 126 by Doctors, 2 by Maternity Nurses, or by Parents. There were 2 notifications of illegitimate births, 1·7 per cent. fewer than last year. Twenty-three of the infants born died before the first visit was paid by the Health Visitor on the eleventh day after birth.

There were 975 (an increase of 405 on last year's numbers) names placed on the Register of the Health Visitors, and all of these babies were visited by them.

**Midwives' Act, 1918.**—The payments made by the Local Supervising Authority to medical men for attendance on women and infants at confinements, when the midwife in case of emergency as defined in the Rules of the Central Midwives Board, calls in to her assistance a registered medical practitioner, numbered 91. The Ministry of Health arranged a scale of fees, and the amount paid in Worcester to doctors was £128 14s. 6d. Of this sum £3 15s. 6d. was recovered by the Local Supervising Authority during 1920 from the patients.

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## **Maternity and Child Welfare Act, 1918.**

(1) **Midwives.**—The Local Authority has paid to Midwives their fee for attendance on patients up to 15/- in each case where the patient could not afford that sum. There is a very good service of Midwives in the City, and

maintain this it is hoped that the remuneration for the Midwives will be further increased by the Local Authority. There is no Maternity Home in Worcester where women can be confined and so avoid the risks due to unsuitable environment which are daily run. It is hoped that in the near future when the present economic depression has passed, that the City Council will further perfect its Maternity and Child Welfare Schemes by providing a Maternity Home. Cases requiring surgical help are received to the Wards of the General Infirmary.

The Local Authority paid to Midwives during the year fees amounting to £31 13s. od., for attendance on 59 patients from whom the Midwife could not obtain payment.

(2) **"Home Helps."**—The number of the much appreciated "Home Helps" provided during 1920 has been 55. The "Home Helps" are generally allowed for two weeks, and the sums paid in each case has varied with the amount of work done. The total cost of providing these "Home Helps" during the past year has been £65 19s. od.

(3) **Dental Treatment for Expectant and Nursing Mothers.**—The expectant and nursing mother is beginning to realise the necessity of the care of the teeth. Twenty-five patients were treated during 1920—six for extractions, four for extractions and new dentures, and eight for dentures only. A sum of £175 7s. od. was paid for the work, and £47 10s. od. was received from the patients.

(4) **Home Nursing.**—Cases of Puerperal Fever, Measles, Whooping Cough, Epidemic Diarrhœa, Bronchial Pneu-

monia, and other children's ailments are nursed and attended to by the District Nurses attached to the County and City Nursing Institution, and this nursing has been most satisfactorily done. The Council continue to pay an inclusive fee of £50 a year for this work.

(5) **Hospital Treatment for Children under five years.**—Cases of Ophthalmia Neonatorum are treated at the Ophthalmic Hospital for the sum of one guinea per case. In the middle of October, 1920, Collosol Argentum was supplied to the Midwives from the Health Office. No statistics are yet available to show whether the routine treatment with Collosol Argentum will act successfully as a prophylactic for Ophthalmia Neonatorum. The Committee of the General Infirmary agreed during 1920 to receive children under five years for treatment, payment being made by the City Council on an agreed scale.

(6) **The Day Nursery at 54, Lowesmoor.**—The attendances decreased towards the end of the year, and fell to a daily average of 15. This decrease was due to the unemployment of mothers. The Nursery has been satisfactorily run, and the mothers greatly appreciate the benefits the children derive from the careful attention to their health and habits. The total cost of the Day Nursery for the year ending 1920 was £711 11s. 0d., and £194 9s. 0d. was received from the parents or guardians, and in a few cases from the Infant Health Society who most generously undertook the payments of a few necessitous cases.

**Milk (Mothers and Children Order, 1918).**—In circular 65, dated 7th January, 1920, the Minister of Health

reminded the Local Authorities of his circular letter of the 13th October, 1919, in which he urged Local Authorities where necessary to extend the arrangements for the supply of milk to expectant and nursing mothers and children under five, and to make known generally in their district the arrangements which they made to afford such a supply.

The Minister of Health suggested that children under 18 months should have one pint and a half daily, and children between 18 months and 5 years one pint daily. The quantity for nursing and expectant mothers was left to the discretion of the Medical Officer of the Centre who in necessitous cases prescribed one pint daily during the last two months of pregnancy.

Before every mother received milk for herself or her infant, an enquiry was made regarding her husband's wage, the weekly wages of other members of the family and other sources of income, the number of persons in the family, and the rent. In most cases the employers were asked to verify the information regarding wages. Enquiries were also made at the Naval and Military War Pensions Office and at the Labour Bureau regarding the statements made on the form given to the patient. Because of the fluctuation in the husband's work and wages the clerical work connected with the distribution of milk, either free or below cost price according to scales of income fixed by the Health Committee, had become so vast that the Welfare staff found it difficult to perform its ordinary routine work. (The expression "milk" includes any preparation of milk which may be prescribed by the Medical Officer of Health or by the Medical Officer of the Maternity and Child Welfare Centre).

In the circular 23 from the Ministry of Health the following is extracted :—"The Minister trusts that Local Authorities will take all possible steps on the lines suggested in this circular to secure that expectant and nursing mothers and young children in their districts shall not suffer during the coming Winter from a shortage of milk owing to the inability to obtain a sufficient supply at prices which they can afford to pay."

This the City Council took steps to secure drawing up a reasonable scale, passed by the Ministry of Health, by which the persons eligible for milk either free or at reduced price could obtain an adequate supply.

The general arrangements for attending to the health of expectant and nursing mothers and young children, are as follows :—

There were for the first eight months of 1920, three Health Visitors : two, each taking half of the City, and the third (half of her salary being paid by the Infant Health Society) taking the ante-natal work of the whole City. It was much required fourth Health Visitor, whose salary is wholly paid by the Infant Health Society, was added to the Welfare staff in October, 1920, when the City was divided into four districts, each Health Visitor supervising one.

The Health Visitors have done most noble and excellent work. They have made 6535 visits to children regarding children under five years, and paid 1280 visits to nursing or expectant mothers ; 6919 cases have been seen by them when visiting 4761 different homes.

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**Ante-natal Clinic.**—During the past year 734 expectant mothers have come for advice to the Ante-natal Clinic; of these 260 were referred to the doctor. There were 932 return attendances, of which 194 required medical advice.

The following numbers, taken from the Quarterly reports, show the statistics for the year:—

|                | No. of patients<br>who paid<br>first visits. | No. of patients<br>who paid<br>return visits. |
|----------------|----------------------------------------------|-----------------------------------------------|
| First Quarter  | ... 160                                      | ... 189                                       |
| Second Quarter | ... 131                                      | ... 335                                       |
| Third Quarter  | ... 324                                      | ... 192                                       |
| Fourth Quarter | ... 119                                      | ... 216                                       |
|                | <hr/> 734                                    | <hr/> 932                                     |

The average attendance at the Ante-natal Clinic was 19 or 20, and the total number of attendances was 1666; 454 were seen by the doctor, a few of these were referred to the M.D. officer for treatment, a few to their own doctors on account of albuminuria heart trouble and contracted pelvis, and the remainder were advised, and in some cases treated, for minor ailments, principally constipation and varicose veins. The patients on the whole attending the Clinic have been wonderfully healthy.

During the year 2882 dinners have been provided for necessitous expectant and nursing mothers, at a total cost of £185 6s. od. The benefits the mothers have derived from having sufficient nourishment are shown by the fact that in almost every case the mother has been able to suckle her child or children (twins), and the babies born have been, without exception, fine healthy infants.

**Child Welfare Clinics.**—The numbers attending the Clinics at the Bank Street Dispensary on Wednesdays and Fridays were so large that it was found necessary to re-open St. Clement's and St. Paul's Clinics—the former on February 26th, 1920, the latter on March 11th, 1920. Both Clinics had been closed in March, 1919, due to stress of work of the part-time Medical Officer of the Maternity and Child Welfare Department. The re-opening of these Clinics relieved the congestion of the other Clinics considerably, but it was found necessary to further reduce the number, and a third Clinic was opened on Mondays, at Bank Street, on August 30th, 1920, and on October 19th a second Clinic was started at St. Paul's.

| Child Welfare.                                 | Bank Street.<br>Monday. | Bank Street.<br>Friday. | St. Paul's.<br>Tuesday. | S. Paul's.<br>Thursday. | Bank Street.<br>Wednesday. | St. Clement's.<br>Thursday. | Total. | Remarks.                                     |
|------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------------|-----------------------------|--------|----------------------------------------------|
| Number of days on which<br>Clinic was held ... | <i>a</i> 17             | 51                      | <i>b</i> 10             | <i>c</i> 41             | 52                         | <i>d</i> 43                 | 214    | <i>a</i> This Clinic began<br>on Aug. 30th.  |
| Number of new attend-<br>ances ...             | 52                      | 356                     | 8                       | 117                     | 376                        | 80                          | 989    | <i>b</i> This Clinic began<br>on Oct. 19th.  |
| Number of return attend-<br>ances ...          | 576                     | 2528                    | 325                     | 1962                    | 3204                       | 924                         | 9519   | <i>c</i> This Clinic began<br>on March 11th. |
| Total number of attend-<br>ances ...           | 628                     | 2884                    | 333                     | 2079                    | 3580                       | 1004                        | 10508  | <i>d</i> This Clinic began<br>on Feb. 26th.  |

The premises at Bank Street (The Dispensary) are hardly in accordance with the primary function, namely prevention, of the Maternity and Child Welfare work. Looking at the annexed Table of figures it will be noticed that over 5,000 visits of children under five, most of whom were under one year, were paid to the rooms at the *Public Dispensary*, where all manner of patients are examined and diseases prescribed for, including Tuberculosis. Children under two years are most susceptible to Tuberculosis.

The rooms at Bank Street (The Dispensary) are cleaned and disinfected regularly, that is the floors, but there must be millions of micro-organisms lurking in crevices and corners of walls, windows, forms, chairs and desks, and it is in these very rooms that three of the largest Clinics are held, because more suitable premises could not be obtained.

The Infant Health Society provides tea at both St. Paul's Clinics, and, when possible, talks or classes for new mothers are held. The inadequate accommodation at the other Clinics makes it impossible to hold classes in connection with these Clinics. The Ministry of Health suggests educational classes in the Hygiene of Pregnancy, Motorcraft, making garments for the baby, etc. This work cannot be undertaken properly until the Maternity and Child Welfare Department can secure adequate premises.

There have been ten Voluntary Workers helping at the Clinics during the latter half of the past year. They have assisted in weighing the babies, keeping the weight registers, making tea, and amusing the children.

at the various Clinics would be still further facilitated and extended if the number of Voluntary Workers was augmented.

At each Clinic the Infant Health Society provides a rack from which garments of approved material and shape may be bought at cost price by the mothers. The garments are generously made by members of this Society.

There is one Sewing Class held by a Voluntary Worker, and quite a number of mothers from the different Clinics attend regularly, and have greatly appreciated the advice and instruction given.

The work at the Clinics has been greatly facilitated and extended during the latter half of 1920 because of the acceptable and kindly assistance of the Voluntary Workers, to whom the Medical Officer of Health and the Health Staff offer their very grateful thanks.

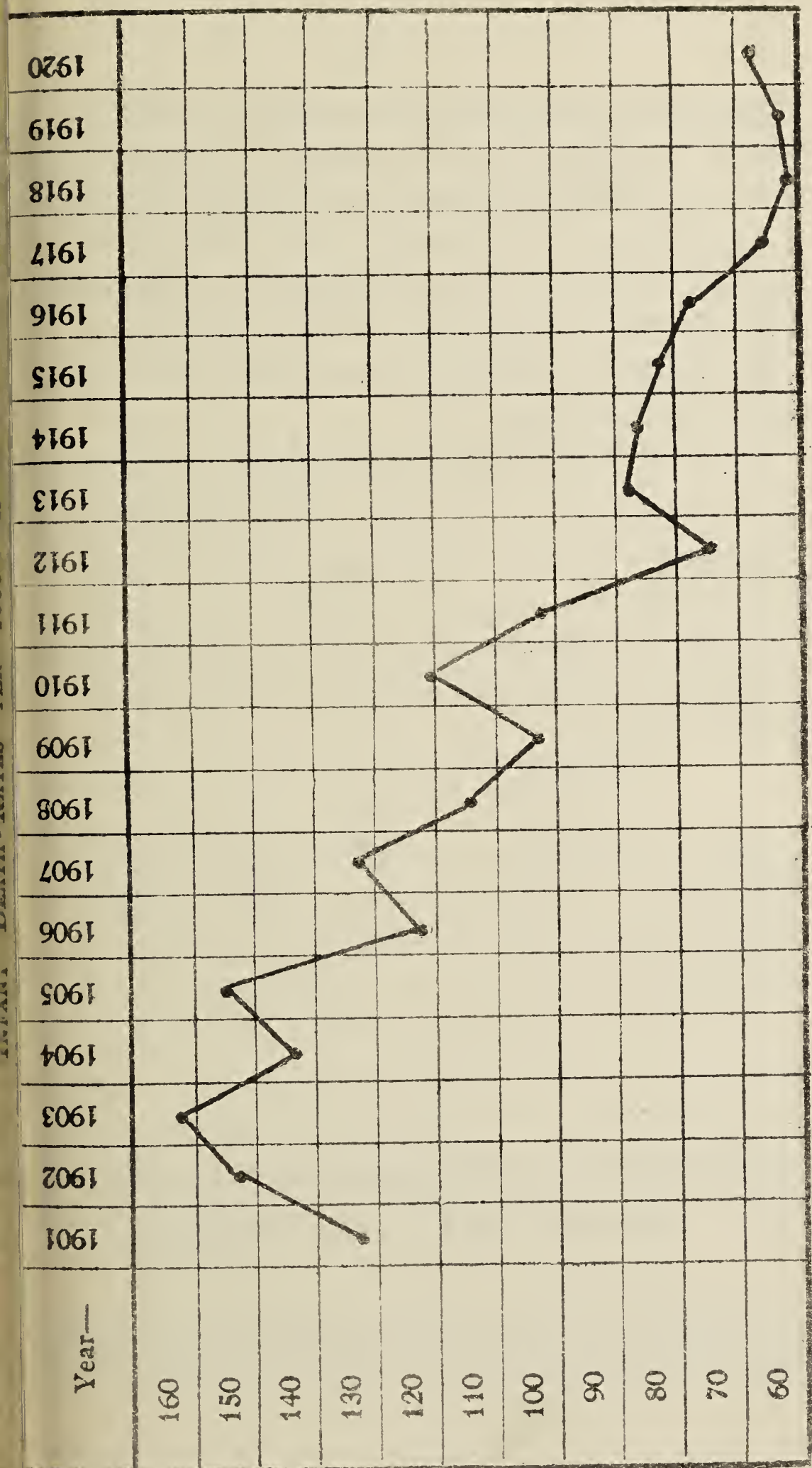
The aim of the Clinic is to create there such an atmosphere of brightness, happiness, and learning, that the time spent by the mothers at the various Clinics should be an interesting interlude in the humdrum life of a care-worn mother, a respite from dull or worrying toil, a place where the mind finds new interests, where light breaks in unperceived, and the lamp of learning is found; this surely should be a "School for Mothers."

This aim has been partially attained with the help of the Voluntary Workers, but, if the goal is to be reached successfully, many more helpers will be required.

The Infant death-rate reckoned on per thousand births for the past year was 67. The slight increase in the death-

rate may be due to an increased percentage of Premature Births, to an increased percentage of Infants born with Congenital Defects, and to an increased percentage of deaths due to Marasmus and Debility. The percentage of deaths due to prematurity to the total Infant deaths during the past year was 32 ; in 1916, when the death-rate was 77, it was 33, and in 1914 the death-rate was 87 and the percentage 37. Again, in 1919, when the death-rate was 66, the percentage was only 26, and in 1918, when the death-rate was 60 (the lowest death-rate on record), the percentage was 27. The number of premature Infants born is bound to influence the death-rate.

The percentage of children dying from Syphilis and Congenital Defects has been higher during the past year than it has been for many years in Worcester.



**Still-births.**—The number of still-births notified in 1900 was 35. In 22 of the cases medical men were in attendance; the remaining 13 cases were notified by Midwives.

The duration of intra-uterine life in the 35 cases was as follows:—Under six months, 6; from six to seven months, 3; from seven to eight months, 4; full time, 22.

As regards the condition of the foetus, 15 were macerated and 20 not macerated.

It will be noticed that in 62·8 per cent. of the cases of still-births occurred at full time, while in 42·8 per cent. of the cases the foetus had died some considerable time before labour set in.

Special enquiries were made into the 13 still-births notified by the Midwives, and the following Table shows the facts obtained.

| Cause.          | PREMATURE. |                | FULL TIME. |                |
|-----------------|------------|----------------|------------|----------------|
|                 | Macerated. | Non-Macerated. | Macerated. | Non-Macerated. |
| Fall ...        | —          | ...            | 1          | ...            |
| Deformed ..     | —          | ...            | 1          | ...            |
| Malpresentation | 1          | ...            | 1          | ...            |
| Over-exertion   | —          | 1              | 1          | ...            |
| Unknown...      | 3          | 1              | 1          | 2              |

## Incidence of the Diseases that occur among Women and young Children.

(1) **Puerperal Fever.**—During the year three cases were reported. All of them recovered, two being treated at

and one at the General Infirmary, where it was sent to the doctor who was called in for the confinement. The child died at the Infirmary three weeks after birth.

**Ophthalmia Neonatorum.**—There were 26 cases treated, and all the patients recovered satisfactorily. In no case was the sight of an eye in any way damaged. Seven of the patients were treated in the Out-patient Department of the Ophthalmic Hospital, and eight others by their own medical men.

**Measles and Rubella.**—These were not notifiable diseases during the year 1920. The Health Visitors found 10 children suffering from Measles when visiting the homes. There were 14 deaths from Measles during the year, two of these were of infants under one year of age, and 12 between the ages of one and five years.

**Whooping Cough.**—This is not a notifiable disease, but the Health Visitors reported 69 children whom they found when visiting at the homes. There were 10 deaths registered from the disease, one being under 12 months and the others being all under the age of five years.

The City Council has an agreement with the Nursing Institution, of the Tything, to visit and nurse all cases of Measles, Whooping Cough, etc., which are brought to their notice, and the help of the District Nurses in this matter is most valuable.

**Epidemic Diarrhœa.**—There was very little Diarrhœa in the City during the year. One death occurred from

Diarrhœa in the First quarter of the year, two Enteritis, two during the Second quarter, one during the Third, and three during the Fourth.

(6) **Epidemic Influenza.**—There was no epidemic Influenza during 1920, a few cases only occurring scattered through the City.

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## Sanitary Administration.

(1) **Staff.**—Consists of (1) the Medical Officer of Health who is in charge of the City Hospitals and who is also the Tuberculosis Officer; (2) a lady Assistant Medical Officer of Health and Assistant Tuberculosis Officer, who also does all the Maternity and Child Welfare work, also the Tuberculosis Dispensary Clinic for women and children and visits the City Hospital as may be necessary; (3) the Sanitary Inspector, who supervises the work of the Assistant Inspectors, inspects the slaughtering of animals, and carries out the duties of food inspection; (4) Two Assistant Inspectors, each having one half the City area, and performing all the duties of an Inspector in that area.

(2) **Hospital Accommodation.**—The City Hospital, Newtown Road, with accommodation for Scarlet Fever, Diphtheria, Typhoid Fever, all ample for the needs of the City. Adjoining are open-air pavilions for the treatment of persons suffering from Tuberculosis, where moderate and advanced cases of this disease are admitted.

A separate Smallpox Hospital is situated near

Madine Road, two miles from the City, and is always  
 et in readiness for the reception of patients.

) **Chemical and Bacteriological Examinations** are  
 le at the Laboratory at the Shirehall in the City. The  
 i water is examined weekly, and more often if thought  
 essary. Swabs from persons suspected of having  
 Dtheria, sputum detection of tubercle bacilli (240 during  
 h year), and other bacteriological work is successfully  
 n skilfully carried out at this Laboratory.

) **Housing.**—*The general housing conditions* in the  
 Ci have not greatly improved during 1920. There have  
 been 16 new houses completed during the year, and plans  
 o the erection of 30 new houses have been approved.

he shortage of houses still exists, but the building of  
 e houses on the sites approved by the Ministry is pro-  
 gressing and the acute shortage will thereby be relieved.

he very abnormal conditions of trade make it difficult  
 o forecast what the demands for houses will be. The  
 completion of new factories and their working may absorb  
 thmen now unemployed.

) **Overcrowding.**—This may be of more than one kind.  
 It may be looked at as a matter of cubic space per room  
 pe person ; or from the point of view of decency, when  
 bes and girls have to occupy the same room or the room  
 in which their parents sleep. The latter kind of over-  
 crowding is by far the more serious, and among the very  
 pe, who as a rule have the larger families, is most  
 difficult to deal with, as their wages do not permit them to

occupy a house with a sufficient number of bedrooms, and the measures necessary to remedy this kind of overcrowding do not fall within the powers of a Sanitary Authority.

The standard of cubic feet of air per adult per room is 350. Two children under 10 years count as one adult. This is a poor enough standard, especially in the ill-ventilated houses to which it is applied.

The eight cases of overcrowding as regards cubic space that were discovered were dealt with by using the parlour as a bedroom, or by sleeping some of the family in adjacent houses.

As pertaining to this question, an inspection during the early months of 1921 of 827 working-class houses disclosed that 54 of these houses were occupied by more than one family. It is certain that this was due either to poverty or to lack of houses. The streets inspected consisted of a poor class of house property, which could not afford to accommodate more than one family in each house.

The measures necessary for dealing with overcrowding are the provision of new houses, and at a rent which the wages of the working man will enable him to pay.

(6) **Fitness of Houses.**—The Health Committee has visited during the year 157 houses where the conditions of living have been unsatisfactory, and did not come up to the standard laid down by the Council in December, 1919.

Of these 157 houses, representations as being unfit for human habitation were made by your Medical Officer of Health as regards 54 houses, and Closing Orders were made against 50.

The general defects are—insufficient light and air around the houses, want of adequate ventilation to the house, a lack of sufficient sanitary accommodation, and minor defects in the structure and cleanliness of the interiors.

Of the 50 houses on which Closing Orders were served, 10 have been voluntarily demolished by the owners, and 10 others are void. Of the remaining houses, 10 can be made fit, the others will be demolished. Further action cannot be taken until houses are provided for the tenants.

During the War, and since, owners have found great difficulty in maintaining their houses in a proper state, owing to shortage of labour and materials. Now these conditions are improving, and defects of structure and of cleanliness are being remedied. The Health Committee, although anxious to carry out the resolution of the Council of December, 1919, have been obliged to modify their demands for these improvements, and substitute less adequate measures until further housing accommodation has been provided, and the houses now back-to-back can be made into through houses.

Apart from the Closing Orders made under the Housing Acts, the sanitary improvements have been carried out by means of the Public Health Acts.

(7) **Unhealthy areas.**—It is not possible to deal with unhealthy areas until there is a good prospect of sufficient new houses being built to accommodate the occupiers of the houses that would be removed on these areas.

Three areas that will require to be dealt with were outlined in the survey of the City asked for by the Government in October, 1919.

(8) **Byelaws relating to Houses, Houses let in Lodgings, etc.**—The Byelaws relating to the building of new houses have not been revised. The Byelaws relating to Houses let in Lodgings are in need of revision, and the Health Committee will be asked to re-consider them during 1921.

The following Appendix on Housing Conditions has been sent by the Ministry of Health :—

## HOUSING.

### APPENDICES.

#### 1.—*General.*

|                                                       |     |     |     |     |             |
|-------------------------------------------------------|-----|-----|-----|-----|-------------|
| 1. Estimated population...                            | ... | ... | ... | ... | 50,000      |
| 2. General death-rate                                 | ... | ... | ... | ... | 13.1        |
| 3. Death-rate from Tuberculosis of all kinds          | ... | ... | ... | ... | 16          |
| 4. Infantile mortality                                | ... | ... | ... | ... | 67          |
| 5. Number of dwellinghouses of all classes            | ... | ... | ... | ... | 11,132      |
| 6. Number of working-class dwellinghouses             | ... | ... | ... | ... | about 8,000 |
| 7. Number of new working-class dwellinghouses erected | ... | ... | ... | ... | 16          |

#### 2.—*Unfit Dwellinghouses.*

##### *I.—Inspection.*

|                                                                                                                            |     |     |     |     |      |
|----------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|-----|------|
| 1. Total number of dwellinghouses inspected for housing defects (under Public Health or Housing Acts)                      | ... | ... | ... | ... | 2, 5 |
| 2. Number of dwellinghouses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910 | ... | ... | ... | ... | ...  |

|                                                                                                                                |    |
|--------------------------------------------------------------------------------------------------------------------------------|----|
| Number of dwellinghouses found to be in a state so dangerous or injurious to health as to be unfit for human habitation ... .. | 54 |
|--------------------------------------------------------------------------------------------------------------------------------|----|

|                                                                                                                                                               |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Number of dwellinghouses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation | 160 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|

*II.—Remedy of Defects without service of Formal Notice.*

|                                                                                                                                   |    |
|-----------------------------------------------------------------------------------------------------------------------------------|----|
| Number of defective dwellinghouses rendered fit in consequence of informal action by the Local Authority or their officers ... .. | 85 |
|-----------------------------------------------------------------------------------------------------------------------------------|----|

*III.—Action under Statutory Powers.*

A Proceedings under Section 28 of the Housing, Town Planning, etc., Act, 1919 :—

|                                                                                           |     |
|-------------------------------------------------------------------------------------------|-----|
| 1. Number of dwellinghouses in respect of which notices were served requiring repairs ... | Nil |
| 2. Number of dwellinghouses which were rendered fit :—                                    |     |

|                      |     |
|----------------------|-----|
| (a) by Owners ... .. | Nil |
|----------------------|-----|

|                                                    |     |
|----------------------------------------------------|-----|
| (b) by Local Authority in default of Owners ... .. | Nil |
|----------------------------------------------------|-----|

|                                                                                                                                                     |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 3. Number of dwellinghouses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ... .. | Nil |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|

F Proceedings under Public Health Act :—

|                                                                                                         |     |
|---------------------------------------------------------------------------------------------------------|-----|
| 1. Number of dwellinghouses in respect of which Notices were served requiring defects to be remedied :— |     |
| (a) by Owners ... ..                                                                                    | 920 |

(b) by Local Authority in default of  
Owners ... ..

C. Proceedings under Sections 17 and 18 of the Housing, Town Planning, etc., Act, 1909 :—

1. Number of representations made with a view to the making of Closing Orders ... ..
2. Number of dwellinghouses in respect of which Closing Orders were made ... ..
3. Number of dwellinghouses in respect of which Closing Orders were determined, the dwellinghouses having been rendered fit ...
4. Number of dwellinghouses in respect of which Demolition Orders were made ... ..
5. Number of dwellinghouses demolished in pursuance of Demolition Orders ... ..
6. Number of dwellinghouses demolished voluntarily for which Closing Orders were made ..

3.—*Unhealthy Areas.*

Areas represented to the Local Authority with a view to Improvement Schemes under (a) Part I., or (b) Part II. of the Act of 1890 :—

1. Name of area ... ..
2. Acreage ... ..
3. Number of working-class houses in area ...
4. Number of working-class persons to be displaced ... ..
4. Number of houses not complying with the Building Byelaws erected with consent of Local Authority under Section 25 of the Housing, Town Planning, etc., Act, 1919 ... ..

engaged on Housing work with, briefly, the duties of each officer :—

There are two Assistant Sanitary Inspectors, who each has one half the area of the City for Housing and all other duties relating to their office. Their work is directed and supervised by the Medical Officer of Health and by the Chief Sanitary Inspector, Mr. Ralph Taylor.

TABLE I.  
BIRTH-RATE, DEATH-RATE, AND ANALYSIS OF MORTALITY DURING  
THE YEAR 1920.

|                                            | Birth-rate per 1000 Total Population. | Annual Death-rate per 1000 Civilian Population. |                |             |             |                |                 |             | Rate per 1000 births.                   |                            |
|--------------------------------------------|---------------------------------------|-------------------------------------------------|----------------|-------------|-------------|----------------|-----------------|-------------|-----------------------------------------|----------------------------|
|                                            |                                       | All Causes.                                     | Enteric Fever. | Smallpox.   | Measles.    | Scarlet Fever. | Whooping Cough. | Diphtheria. | Diarrhoea and Enteritis (under 2 years) | Total deaths under 1 year. |
| England and Wales...                       | 25·4                                  | 12·4                                            | 0·01           | 0·00        | 0·19        | 0·04           | 0·11            | 0·15        | 8·3                                     | 80                         |
| 96 great towns .....<br>(including London) | 26·2                                  | 12·5                                            | 0·01           | 0·00        | 0·22        | 0·04           | 0·14            | 0·16        | 10·4                                    | 85                         |
| 148 smaller towns ...                      | 24·9                                  | 11·3                                            | 0·02           | 0·00        | 0·19        | 0·03           | 0·10            | 0·14        | 7·8                                     | 80                         |
| London .....                               | 26·5                                  | 12·4                                            | 0·01           | 0·00        | 0·22        | 0·05           | 0·17            | 0·22        | 9·5                                     | 75                         |
| <b>Worcester .....</b>                     | <b>23·2</b>                           | <b>13·01</b>                                    | <b>0·02</b>    | <b>0·00</b> | <b>0·28</b> | <b>0·00</b>    | <b>0·20</b>     | <b>0·10</b> | <b>5·2</b>                              | <b>67</b>                  |

TABLE II.—VITAL STATISTICS OF WHOLE DISTRICT DURING 1920 AND TEN PREVIOUS YEARS.

| Year.<br>1 | Population<br>estimated<br>to middle<br>of each<br>year.<br>2 | BIRTHS.                          |        |       | TOTAL DEATHS<br>REGISTERED<br>IN THE<br>DISTRICT. |            | TRANSFERABLE<br>DEATHS                                         |                                                               | NETT DEATHS BELONGING TO<br>THE DISTRICT. |                                       |                    |             |
|------------|---------------------------------------------------------------|----------------------------------|--------|-------|---------------------------------------------------|------------|----------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------|---------------------------------------|--------------------|-------------|
|            |                                                               | Un-<br>corrected<br>Number.<br>3 | Nett.  |       | Number<br>*<br>6                                  | Rate.<br>7 | of Non-<br>Residents<br>registered<br>in the<br>District.<br>8 | of Residents<br>not<br>registered<br>in the<br>District.<br>9 | Under 1 Year<br>of Age.                   |                                       | At all Ages.       |             |
|            |                                                               |                                  | Number | Rate. |                                                   |            |                                                                |                                                               | Number<br>*<br>10                         | Rate per<br>1000 nett<br>births<br>11 | Number.<br>*<br>12 | Rate.<br>13 |
| 1910       | 47,885                                                        | 1095                             | —      | 22·8  | 736                                               | 15·3       | 43                                                             | 12                                                            | 129                                       | 117                                   | 705                | 14·7        |
| 1911       | 48,021                                                        | 1071                             | 1073   | 22·3  | 737                                               | 15·3       | 35                                                             | 27                                                            | 108                                       | 100                                   | 729                | 15·2        |
| 1912       | 48,152                                                        | 1009                             | 1010   | 20·97 | 634                                               | 13·16      | 57                                                             | 23                                                            | 76                                        | 75                                    | 600                | 12·46       |
| 1913       | 48,287                                                        | 930                              | 930    | 19·25 | 711                                               | 14·72      | 54                                                             | 29                                                            | 83                                        | 89                                    | 686                | 14·2        |
| 1914       | 48,424                                                        | 994                              | 1000   | 20·6  | 732                                               | 15·11      | 28                                                             | 24                                                            | 88                                        | 88                                    | 728                | 15·03       |
| 1915       | 48,071                                                        | 995                              | 1000   | 20·16 | 699                                               | 14·09      | 30                                                             | 31                                                            | 83                                        | 83                                    | 700                | 14·11       |
| 1916       | 48,459                                                        | 878                              | 882    | 18·2  | 654                                               | 13·5       | 44                                                             | 33                                                            | 69                                        | 78·2                                  | 643                | 13·3        |
| 1917       | 50,000                                                        | 771                              | 773    | 15·46 | 692                                               | 13·84      | 69                                                             | 54                                                            | 50                                        | 64                                    | 677                | 13·54       |
| 1918       | 51,000                                                        | 792                              | 800    | 15·68 | 783                                               | 15·37      | 64                                                             | 66                                                            | 48                                        | 60                                    | 785                | 15·4        |
| 1919       | 51,000                                                        | 817                              | 815    | 16·00 | 670                                               | 13·1       | 62                                                             | 38                                                            | 50                                        | 61                                    | 646                | 12·5        |
| 1920       | 49,248                                                        | 1141                             | 1142   | 23·2  | 679                                               | 13·8       | 57                                                             | 19                                                            | 77                                        | 67                                    | 641                | 13·01       |

\* In Column 6 are to be included the whole of the deaths registered during the calendar year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

Area of District in acres  
(exclusive of area  
covered by water). } 3662

Total population at all ages, including area added in 1914 49,158 } At Census  
Total families or separate occupiers ... .. 11,220 } of  
1911.

TABLE III.

INFANT MORTALITY 1920. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER ONE YEAR OF AGE.

| CAUSE OF DEATH. |                                           |     |     | Under 1 Week. | 1-2 Weeks. | 2-3 Weeks. | 3-4 Weeks. | Total under 1 Month. | 1-3 Months. | 3-6 Months. | 6-9 Months. | 9-12 Months. | Total Deaths under One Year. |
|-----------------|-------------------------------------------|-----|-----|---------------|------------|------------|------------|----------------------|-------------|-------------|-------------|--------------|------------------------------|
| {               | Small-pox ...                             | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Chicken-pox ...                           | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Measles ...                               | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | I           | I            | 2                            |
|                 | Scarlet Fever ...                         | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
| {               | Whooping Cough ...                        | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | I            | I                            |
|                 | Diphtheria and Croup ...                  | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | I            | I                            |
|                 | Influenza ...                             | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Tuberculous Meningitis ...                | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | I            | I                            |
| {               | Abdominal Tuberculosis ...                | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Other Tuberculous Diseases ...            | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Meningitis ( <i>not Tuberculous</i> ) ... | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Convulsions ...                           | ... | I   | ...           | ..         | ..         | ..         | I                    | I           | I           | I           | I            | 5                            |
| {               | Laryngitis ...                            | ... | ... | ..            | ..         | ..         | ..         | ..                   | ..          | ..          | ..          | ..           | ...                          |
|                 | Bronchitis ...                            | ... | ... | ..            | ..         | ..         | I          | I                    | ...         | ..          | I           | ...          | 2                            |
|                 | Pneumonia (all forms) ...                 | ... | ... | ..            | ..         | ..         | ..         | ...                  | I           | 3           | 2           | 2            | 8                            |
|                 | Diarrhoea ...                             | ... | ... | ..            | ..         | ..         | ..         | ...                  | ...         | ...         | ..          | ..           | ...                          |
| {               | Enteritis (including Colitis) ...         | ... | ... | ..            | ..         | ..         | ..         | ...                  | ...         | 4           | I           | ...          | 5                            |
|                 | Gastritis ...                             | ... | ... | ..            | ..         | I          | ...        | I                    | I           | 2           | ...         | ...          | 4                            |
|                 | Syphilis ...                              | ... | ... | ..            | ..         | I          | ...        | I                    | 2           | ...         | ...         | ...          | 3                            |
|                 | Rickets ...                               | ... | ... | ..            | ..         | ..         | ..         | ...                  | ...         | ...         | ...         | ...          | ...                          |
| {               | Suffocation, overlying ...                | ... | ... | ..            | ..         | ..         | ..         | ...                  | ...         | ...         | ...         | ...          | ...                          |
|                 | Injury at Birth ...                       | ... | I   | ...           | ..         | ..         | ..         | I                    | ...         | ...         | ...         | ...          | I                            |
|                 | Atelectasis ...                           | ... | I   | ...           | ..         | ..         | ..         | I                    | ...         | ...         | ...         | ...          | I                            |
|                 | Congenital Malformations... I             | 2   | I   | I             | 5          | ...        | ...        | ...                  | ...         | I           | ...         | 6            |                              |
| {               | Premature Birth ...                       | 16  | I   | 3             | I          | 21         | 3          | I                    | ...         | ...         | ...         | 25           |                              |
|                 | Atrophy, Debility, and Marasmus ...       | ... | ... | ..            | I          | ...        | I          | 2                    | I           | ...         | 2           | 6            |                              |
|                 | Inanition ...                             | ... | 2   | I             | ...        | ...        | 3          | I                    | ...         | ...         | ...         | 4            |                              |
|                 | Other Causes ...                          | ... | I   | ...           | ..         | ...        | I          | ...                  | I           | ...         | ...         | 2            |                              |
|                 |                                           |     |     | 23            | 4          | 7          | 3          | 37                   | 11          | 13          | 7           | 9            | 77                           |

Nett Births registered in the year {  
legitimate 1089.  
illegitimate 53.

Nett Deaths in the year of {  
legitimate infants 69.  
illegitimate infants 8.

| No.              | CAUSES OF DEATH.                                         | AGES. |    |    |     |     |     |     |     |     |     |     | All<br>Ages. |     |     |
|------------------|----------------------------------------------------------|-------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|-----|-----|
|                  |                                                          | 0-    | 1- | 5- | 10- | 15- | 20- | 25- | 35- | 45- | 55- | 65- |              | 75- | 85- |
| 1                | Small-pox .....                                          | ..    | .. | 1  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 14  |
| 2                | Measles.....                                             | 2     | 11 | 1  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 3                | Scarlet Fever.....                                       | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 4                | Typhus Fever .....                                       | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 5                | Epidemic Influenza .....                                 | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | 1   | 1   | 2   | 1            | ..  | 5   |
| 6                | Whooping-cough .....                                     | 1     | 9  | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 10  |
| 7                | Diphtheria, Membranous Croup .....                       | ..    | 2  | 1  | ..  | ..  | 1   | ..  | ..  | 1   | ..  | ..  | ..           | ..  | 5   |
| 8                | Paratyphoid Fever .....                                  | ..    | .. | .. | ..  | ..  | ..  | 1   | ..  | ..  | ..  | ..  | ..           | ..  | 1   |
| 9                | Enteric Fever .....                                      | ..    | .. | .. | ..  | ..  | ..  | ..  | 1   | ..  | ..  | ..  | ..           | ..  | 1   |
| 10               | Diarrhoea, Dysentery .....                               | ..    | 1  | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 1   |
| 11               | Epidemic or Zymotic Enteritis .....                      | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 12               | Enteritis .....                                          | 6     | 1  | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 7   |
| 13               | Rheumatic Fever .....                                    | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 14               | <i>Other continued fevers</i> .....                      | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 15               | Erysipelas .....                                         | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 16               | Puerperal Fever .....                                    | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 17               | Syphilis.....                                            | 3     | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | 1   | ..  | ..           | ..  | 4   |
| 18               | Pyæmia.....                                              | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | 2   | ..  | ..           | ..  | 2   |
| 19               | <i>Other septic diseases</i> .....                       | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 20               | Intermittent Fever & Malarial Cachexia .....             | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 21               | Tuberculosis of Meninges .....                           | 1     | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | 5   | ..  | ..           | ..  | 1   |
| 22               | Tuberculosis of Lungs .....                              | ..    | .. | .. | 1   | 4   | 6   | 10  | 7   | 8   | 5   | 2   | ..           | ..  | 43  |
| 23               | Abdominal Tuberculosis .....                             | ..    | .. | .. | 1   | 1   | ..  | 1   | 1   | 2   | 1   | 1   | ..           | ..  | 4   |
| 24               | General Tuberculosis .....                               | ..    | .. | .. | 1   | ..  | ..  | 1   | 1   | 1   | ..  | 1   | ..           | ..  | 4   |
| 25               | Alcoholism .....                                         | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | 1   | ..  | ..  | ..           | ..  | 5   |
| 26               | Gout .....                                               | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 1   |
| 27               | Cancer .....                                             | ..    | .. | .. | ..  | 1   | ..  | ..  | 5   | 20  | 12  | 17  | 17           | 2   | 74  |
| 28               | Diabetes Mellitus .....                                  | ..    | .. | .. | ..  | ..  | ..  | 1   | ..  | ..  | 12  | 1   | 2            | ..  | 4   |
| 29               | Anæmia.....                                              | ..    | .. | .. | ..  | ..  | ..  | ..  | 1   | ..  | 2   | ..  | ..           | ..  | 3   |
| 30               | Premature Birth .....                                    | 25    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 25  |
| 31               | Developmental Diseases .....                             | 13    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 13  |
| 32               | Injury at Birth.....                                     | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 33               | Debility and Marasmus .....                              | 6     | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | 17  | 32           | 16  | 6   |
| 33               | Old Age.....                                             | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 65  |
| 34               | Meningitis and Convulsions .....                         | 5     | 2  | .. | 2   | ..  | ..  | ..  | ..  | 5   | 13  | 17  | 21           | 3   | 9   |
| 35               | Inflammation and Softening of Brain .....                | ..    | .. | .. | ..  | 1   | ..  | ..  | 1   | 1   | 13  | 17  | ..           | ..  | 61  |
| 36               | Diseases of the Spinal Cord .....                        | ..    | 1  | 1  | 1   | 1   | 3   | 4   | 5   | 9   | 11  | 30  | 15           | ..  | 4   |
| 37               | Organic Diseases of Heart .....                          | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | 81  |
| 38               | Laryngeal diseases.....                                  | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 39               | Acute Bronchitis .....                                   | 2     | .. | .. | ..  | ..  | ..  | ..  | ..  | 1   | 2   | 3   | 5            | 2   | ..  |
| 40               | Chronic Bronchitis .....                                 | ..    | .. | .. | ..  | ..  | ..  | ..  | 1   | 2   | 2   | 9   | 9            | ..  | 16  |
| 41               | Lobar (Croupous) Pneumonia .....                         | ..    | 1  | .. | ..  | ..  | ..  | ..  | ..  | ..  | 2   | 3   | 1            | ..  | 23  |
| 42               | Lobular (Broncho-) Pneumonia .....                       | 7     | 10 | 3  | ..  | ..  | ..  | 1   | 3   | 4   | 3   | 1   | 1            | 1   | 8   |
| 43               | Other Lung Diseases .....                                | ..    | 1  | .. | ..  | ..  | 1   | 1   | ..  | ..  | 1   | 1   | 1            | ..  | 35  |
| 44               | Diseases of Stomach.. ..                                 | ..    | 1  | .. | 1   | ..  | ..  | ..  | ..  | ..  | 1   | 1   | 1            | 1   | 5   |
| 45               | Appendicitis .....                                       | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | 3   | 1   | 1            | 1   | 4   |
| 46               | Obstruction of Intestines.....                           | 1     | .. | .. | ..  | ..  | ..  | ..  | ..  | 2   | 4   | 2   | 1            | 1   | ..  |
| 47               | Cirrhosis of Liver.....                                  | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | 5   | 10  | 5   | 2            | ..  | 8   |
| 48               | Nephritis and Bright's Disease .....                     | ..    | .. | .. | ..  | ..  | 1   | ..  | 1   | ..  | 1   | ..  | ..           | ..  | 24  |
| 49               | Diseases of Bladder and Prostate .....                   | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | 1   | 2   | 1            | ..  | 4   |
| 50               | Tumours and Other Affections<br>of Female Genital Organs | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | 1   | ..  | ..  | ..           | ..  | 1   |
| 51               | Accidents and Diseases of Parturition                    | ..    | .. | .. | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..  | ..           | ..  | ..  |
| 52               | Deaths by Accident or Negligence ..                      | ..    | .. | 4  | ..  | 1   | 1   | 1   | ..  | 3   | 1   | 3   | 1            | ..  | 15  |
| 53               | Deaths by Suicide .....                                  | ..    | .. | .. | ..  | ..  | ..  | ..  | 3   | ..  | 2   | 3   | ..           | ..  | 8   |
| 54               | Deaths from Ill-defined Causes .....                     | 1     | .. | .. | ..  | 1   | ..  | ..  | ..  | 1   | 1   | 1   | ..           | ..  | 5   |
| 55               | All other Causes .....                                   | 4     | 1  | .. | ..  | ..  | ..  | 2   | 3   | 2   | 2   | 4   | 5            | 1   | 24  |
| ALL CAUSES ..... |                                                          | 77    | 41 | 10 | 9   | 10  | 13  | 25  | 35  | 69  | 83  | 127 | 115          | 27  | 641 |